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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,791

12/29/2003

Jerrold Von Hauck

APPL-P2839

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03/15/2006

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EXAMINER

MISIURA, BRIAN THOMAS

ART UNIT

PAPER NUMBER

2112

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/749,791	Applicant(s) HAUCK, JERROLD VON	
	Examiner Brian T. Misiura	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102 (b) as being anticipated by Masunaga et al. U.S. Patent No. 6,909,699.

Per claim 1, Masunaga discloses: a method of optimizing communication over a high-speed serial bus by minimizing the delay between packets transmitted over the bus, the method comprising:

- calculating a maximum round trip delay between a first PHY and a second PHY connected on the bus by pinging (Masunaga, column 19 lines 30-50, column 20 lines 24-41, figure 40);
- a bus manager sending a configuration packet to all PHYs connected on the bus, the configuration packet containing a minimum gap_count parameter value, the minimum gap_count parameter value derived from the maximum round trip delay between the first PHY and the second PHY (column 20 lines 42-47, figure 40) (By saying “thereby optimizing the gap count”, it is understood that the configuration packet was sent to all nodes.); and
- all PHYs connected on the bus sending packets over the bus using the minimum gap_count parameter value as delay between packets (column 18 lines 55-65, column 19 lines 1-16) [defines minimum gap-count.], and (column 20 lines 42-47 figure 40).

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Per claim 2, Masunaga discloses: the method of claim 1, further comprising preserving an ack/iso gap between packets, wherein a first PHY sent a most recently-sent packet and a second PHY is responding to the first PHY (column 2 lines 40-45, figure 4).

Per claim 3, Masunaga discloses: the method of claim 2, wherein the second PHY is responding with an ack packet (column 2 lines 40-45, figure 4).

Per claim 4, Masunaga discloses: the method of claim 2, wherein the second PHY is responding with an isochronous arbitration packet (figure 7).

Per claim 5, Masunaga discloses: the method of claim 1, wherein the first PHY sends an isochronous packet, observes a subaction gap, and initiates an arbitration indication (figure 6).

Per claim 6, Masunaga discloses: the method of claim 1, wherein the first PHY sends an asynchronous packet, observes an arbitration reset gap, and initiates an arbitration indication (column 18, lines 34-47, figure 38).

Per claim 6, Masunaga discloses: the method of claim 1, wherein calculating the round trip delay comprises a ping command executed at a link layer level on a node having a first PHY and is directed at a link layer on a node having a second PHY (column 13 lines 7-22 figure 24, and column 19 lines 30-50, column 20 lines 24-41, figure 40).

Per claim 8, Masunaga discloses: the method of claim 7, wherein calculating the round trip delay comprises calculating a round trip delay from a first link on the node having the first PHY and a second link on the node having the second PHY (Masunaga, column 19 lines 30-50, column 20 lines 24-41, figure 40).

Per claim 9, Masunaga discloses: the method of claim 1, wherein the second PHY has a subaction gap timeout value that is greater than the IDLE value that can occur within a

subaction and an isochronous interval on the high-speed serial bus (figure 5, sub action gap is smaller than the entire subaction).

Response to Amendment

Applicant's amendment filed on 12/19/2005 has been fully considered but does not place the application in condition for allowance.

Response to Arguments

In the applicant's amendments, the applicant states that *Masunaga* lacks the claimed limitation of determining a round trip delay between PHYs connected on a high-speed serial bus.

The examiner respectfully disagrees with regards to the applicant's arguments and the newly amended claim 1. *Masunaga* does teach a delay value between two PHYs. Directing the applicant's attention to *Masunaga* at column 20, lines 32-41, *Masunaga* reads:

Herein, in the case where the minimum speed is S200, the bus manager operates as propagation time measuring means and reciprocation time calculating means to transmit the Ping packet at a rate of S200 to all the leaf nodes within the topology, and obtains the propagation time between the bus manager and each leaf node. The round trip delay for each leaf node is calculated on the basis of these values to obtain the maximum round trip delay (round trip delay max) or the maximum reciprocation time.

Referring to figure 40 of *Masunaga*, the PHYs A and B are arranged in a "daisy chain connection" as described by the applicant in paragraph 21. In *Masunaga*, the round trip delays between the bus manager and the individual nodes are used to calculate the maximum round trip delay, similarly to the method described in the applicant's

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specification, more specifically in paragraph 5 and the subsequent equation. Directly mapping an example of Masunaga to that of the applicants claimed invention would consist: Node A and Node B of Masunaga would be equivalent to PHYs X and Y of the applicants' submitted drawings.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

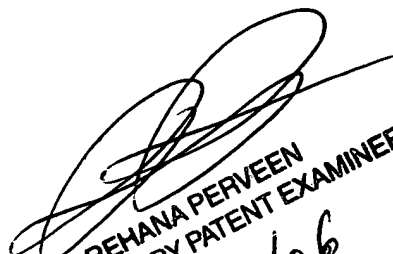
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Misiura whose telephone number is (571) 272-0889. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571)272-3676. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Misura
3/9/2006


REHANA PERVEEN
SUPERVISORY PATENT EXAMINER
3/13/06